



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/997,673	11/29/2001	Mou-Chung Ngai	PGI6044P0231US	4596
32116	7590	04/18/2005	EXAMINER	
WOOD, PHILLIPS, KATZ, CLARK & MORTIMER 500 W. MADISON STREET SUITE 3800 CHICAGO, IL 60661			PIERCE, JEREMY R	
			ART UNIT	PAPER NUMBER
			1771	

DATE MAILED: 04/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/997,673

Applicant(s)

NGAI, MOU-CHUNG

Examiner

Jeremy R. Pierce

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 March 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 22-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 22-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. Applicant's amendment filed March 24, 2005 has been entered. Claim 28 has been amended. Claims 22-28 are currently pending.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 22-28 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 28 recites "said nonwoven fabric wipe exhibits a frictional coefficient differential between the opposite expansive surfaces thereof of at least 0.05." Support for this limitation is not found in the specification because none of the data indicate that measurements of frictional coefficients were taken on opposite expansive surfaces.

4. Claims 22-28 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to

which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 28 recites "said nonwoven fabric wipe exhibits a frictional coefficient differential between the opposite expansive surfaces thereof of at least 0.05." However, the specification does not enable the claimed limitation in the specification. No teaching is provided as to how much binder and what type of binder should be used with any given sample fabric to provide the claimed coefficient differential.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 22-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 28 recites "said nonwoven fabric wipe exhibits a frictional coefficient differential between the opposite expansive surfaces thereof of at least 0.05." How is the "frictional coefficient differential" measured? How is this value provided?

Claim Rejections - 35 USC § 102/103

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 22, 24, 25, and 28 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Anderson et al. (U.S. Patent No. 6,103,061).

Anderson et al. disclose a hydraulically entangled nonwoven fabric comprising two layers and a bonding material applied to one side of the web (column 2, lines 28-36). The application of binder to the web would make it more abrasive. Although Anderson et al. do not explicitly teach the limitation of a frictional coefficient differential between the opposite expansive surfaces to be at least 0.05, it is reasonable to presume that said limitations are inherent to the invention. Support for said presumption is found in the use of similar materials (i.e. nonwoven hydroentangled fabric) and in the similar production steps (i.e. coated with a binder on one side in a pattern) used to produce the absorbent wipe. The burden is upon the Applicant to prove otherwise. *In re Fitzgerald*, 205 USPQ 594. In the alternative, the claimed frictional coefficient differential would obviously have been provided by the process disclosed by Anderson et al. Note *In re Best*, 195 USPQ 433, footnote 4 (CCPA 1977) as to the providing of this rejection under 35 USC 103 in addition to the rejection made above under 35 USC 102. With regard to claims 24 and 25, the binding material may

be applied by spraying (column 13, lines 5-7) in a pre-selected pattern (column 14, lines 38-59).

Claim Rejections - 35 USC § 103

10. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al. in view of Buyofsky et al. (U.S. Patent No. 4,810,568).

Anderson et al. do not disclose an intermediate layer between the first and second layers. Buyofsky et al. disclose a nonwoven composite used as a wipe with excellent abrasion resistance, dimensional stability, and absorbency (column 1, lines 47-60). Two entangled layers are coated with an abrasive binder, and then laminated together with a thermoplastic reinforcement layer in-between, which offers dimensional stability to the composite (column 2, lines 36-64). It would have been obvious to one having ordinary skill in the art to use a reinforcement layer in the nonwoven composite of Anderson et al. in order to increase the dimensional stability of the composite, as taught by Buyofsky et al. Anderson et al. do not disclose the binder material to abate from one layer to the next.

11. Claims 26 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al. in view of Wagner et al. (U.S. Patent No. 5,951,991)

Anderson et al. teach using pigment in the binder composition (column 13, line 23), but do not disclose the binder should have a different color than the other surface. Wagner et al. teach that the use of different colors in a wipe can help the user distinguish the surfaces (column 8, lines 41-42). It would have been obvious to a

Art Unit: 1771

person having ordinary skill in the art at the time of the invention to use different color binder in the material of Anderson et al. in order to allow a user to easily distinguish the surfaces of the wipe, as taught by Wagner et al.

12. Claims 22-28 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Welch et al. (U.S. Patent No. 6,022,818) in view of Wong et al. (U.S. Patent No. 5,213,588).

Welch et al. disclose a hydroentangled nonwoven fabric formed from two different fiber sources (column 2, lines 34-37). One surface is made of matrix fibers, such as polyester (column 2, line 51), and the other surface is made of absorbent fibers, such as cellulosic fibers and rayon (column 4, lines 38-40). Welch et al. do not teach applying an abrasive coating to the fabric for cleansing purposes. Wong et al. disclose adding abrasive particles in a coating to nonwoven wiping materials to enhance soil and stain removal performance (column 1, lines 64-68). Wong et al. further suggest that the abrasive coating of their invention can be applied to any conventionally fashioned nonwoven sheet with suitable characteristics (column 3, lines 65-68). It would have been obvious to one having ordinary skill in the art to apply the abrasive coating provided by Wong et al. to the nonwoven fabric taught by Welch et al. in order to create a cleaning wipe with enhanced soil and stain removing properties. Although Wong et al. do not explicitly teach the limitation of a frictional coefficient differential between the opposite expansive surfaces to be at least 0.05, it is reasonable to presume that said limitations are inherent to the invention upon application of the abrasive binder. Support for said presumption is found in the use of similar materials

(i.e. nonwoven hydroentangled fabric provided by Welch et al.) and in the similar production steps (i.e. coated with an abrasive binder on one side in a pattern, as taught by Wong et al.) used to produce the absorbent wipe. The burden is upon the Applicant to prove otherwise. *In re Fitzgerald*, 205 USPQ 594. In the alternative, the claimed frictional coefficient differential would obviously have been provided by the process disclosed by Wong et al., since Wong et al. teach the binder is applied in order to create abrasiveness for better wiping. With regard to claim 23, Welch et al. disclose a second layer of synthetic matrix fibers can be added to the first layer of matrix fibers, thus making the first layer an intermediate layer. With regard to claims 24 and 25, Wong et al. disclose applying the abrasive coating in a pattern onto the nonwoven fabric (column 2, lines 52-55). A coating applied in a pattern is scattered across the fabric in a non-random fashion. With regard to claims 26 and 27, Wong et al. disclose adding a green dye to the binder composition (see Example IV in column 19), so the color of surface with binder applied thereto would be different from that without binder because of the binder.

Response to Arguments

13. Applicant's arguments filed March 24, 2005 have been fully considered but they are not persuasive.

14. Applicant argues that the frictional coefficient differential is explained in the specification in both tabular and graphical form. However, neither the table on page 17 of the Specification nor the graph in Figure 4 gives a differential between one expansive

surface and the opposite expansive surface. While the table and graph do provide values for frictional coefficient, it is not explained how any of the values relate to one another. The Examiner cannot find any instance where it is explained that one surface of a fabric has one friction coefficient value and the opposite surface of the same fabric has another friction coefficient value. For instance, in the table on page 17, it appears as though two friction coefficient values are provided for Sample A. However, the table does not state that one value is derived from any specific surface and the other value is derived from the opposite surface. "Top NWF" and "Bottom NWF" appear in both sets of data, so it is not clear where these values are coming from.

15. Applicant argues that clear evidence of compliance with the enablement requirement is provided in the form of the Affidavit of Ms. Dianne Ellis. The Examiner has considered this Affidavit previously. In Section 1 of the Office Action dated March 29, 2004, the previous enablement rejection was withdrawn because the Examiner agreed with the substance of the Affidavit. However, the Affidavit is not sufficient to overcome the current rejection for enablement because the scope of the claims has changed. In other words, the Examiner agrees that applying binder to a fibrous matrix will enhance the surface abrasiveness. However, the current enablement rejection is made because the claims now recite a specific degree of abrasiveness achieved (i.e. a frictional coefficient differential of at least 0.05). The specification does not provide any disclosure as to what binder materials can be used to reach this claimed limitation. If a specific abrasiveness value is being claimed, a person of ordinary skill in the art has to know what materials can be used in order to achieve that abrasiveness value. Can any

binder material be used? The specification does not teach how one goes about achieving the claimed frictional coefficient differential.

16. Applicant argues that Anderson et al. do not teach a frictional coefficient differential between opposite expansive surfaces. However, the prior art does not need to disclose claimed properties that it does not measure. A reasonable basis has been shown above that the claimed property is inherent to the material, because the prior art uses similar materials and similar processes (i.e. applying binder to a fibrous matrix). Neither Applicant's claims nor Applicant's specification disclose a distinguishing structural feature from the prior art. Since a reasonable basis exists for the claimed property to be inherent, the burden is now upon the Applicant to show otherwise.

17. Applicant argues that Anderson et al. is completely silent regarding the claimed bi-functionality of the present nonwoven wipe. However, "bi-functionality" is a use of the material. The claims are directed to a product, not a use.

18. Applicant argues that the Examiner has based the Anderson et al. rejection entirely upon the vague and general language that the disclosed process includes "applying a bonding material to at least one side of the web." However, this teaching is not vague. Applicant's specification teaches applying binder to one side of a web. It is unclear how Anderson et al. is any more vague than the present specification.

19. Applicant then argues that Anderson et al. teach the inclusion of a friction reducing agent. However, Anderson et al. only provide friction reducing agent in one embodiment. Anderson et al do not require the friction reducing agent, so the material of Anderson et al. could be made without adding the friction reducing agent.

Additionally, even if a friction reducing agent were supplied to the fabric of Anderson et al., there still would exist a coefficient differential between the same two sides, and a reasonable basis to presume that the differential would amount to at least 0.05. The present claims only embrace a differential between the two sides. Such a differential would still exist even with the presence of friction reducing agent.

20. Applicant argues that the combination of Anderson et al. with Buyofsky et al. does not teach the provision of an intermediate layer for abating migration of binder material from expansive surface to another. However, the presence of a middle layer would accomplish Applicant's desired function because a fibrous middle layer would abate migration of binder, whether or not the prior art specifically states that it does.

21. Applicant argues that Wagner et al. do not teach providing a wipe with differing color on the expansive surfaces. However, Wagner et al. teach that it is known to provide differing color to opposite sides of wipes. Thus, it would be obvious to a person of ordinary skill in the art to use pigment of a different color in Anderson et al., in order to derive the advantages taught by Wagner et al.

22. Applicant argues that Welchel et al. do not teach a bi-functional wipe, but rather a fluid management component in absorbent products. Applicant asserts that Welchel et al. fail to teach the principal feature of the present invention. However, Welchel et al. disclose the material may be used as a wipe (column 1, line 20). Wong et al teach providing abrasiveness to wipes. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re*

Art Unit: 1771

Keller, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

23. Applicant argues that Wong et al. fail to teach creating differing abrasive levels. However, Wong et al. disclose that the abrasive is only applied to one side of the fabric (column 12, lines 11-16). This would create two different abrasive levels.

Conclusion

24. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeremy R. Pierce whose telephone number is (571) 272-1479. The examiner can normally be reached on Monday-Friday between 9am and 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JRP

Jeremy R. Pierce
April 13, 2005

Elizabeth M. Ols
2005